WHAT IS CLAIMED IS:

1. A variable die assembly, comprising:

a die body having an inner portion and an outer portion;

an adjustment sleeve having an inner portion and an outer portion; and

a filter screen, secured in said adjustment sleeve and movable with respect to said die body, so as to allow dynamic control of the pressure applied to material passing through the die.

2. A variable die assembly as in claim 1, wherein at least a portion of the outer portion of the die body and a portion of the inner portion of the adjustment sleeve are cylindrical and correspondingly threaded.

3. A variable die assembly as in claim 1, wherein said filter screen has an outer surface and an inner surface and is secured in said adjustment sleeve with the inner surface directed toward an end portion of said die body and wherein the inner surface of the filter screen and an end portion of the die body have mating surfaces.

4. A variable die assembly as in claim 3, wherein the mating surfaces are frustoconical.

5. A variable die assembly as in claim 1, further comprising:

a gear mounted on a portion of the outer surface of said adjustment sleeve, whereby movement of said adjustment sleeve relative to said die body may be effected to dynamically control pressure applied to material passing through the filter screen.

6. A variable die assembly as in claim 5, wherein said gear is a ring gear.

7. A variable die assembly as in claim 1, wherein said filter screen further comprises:

a predetermined number of through holes passing from the outer surface of the filter screen toward the inner surface; and

a channel circumscribing the inner surface and connecting the through holes in common.

8. A variable die assembly as in claim 1, wherein said filter screen is threaded into an end portion of said adjustment sleeve.

9. A method for flash drying material, comprising the steps of:

providing a dynamically adjustable die assembly, the assembly comprising a die body, an adjustment sleeve and a filter screen; and

forcing material to be dried through the die assembly.

10. The method of claim 9, wherein the step of providing comprises:

providing a filter screen with a plurality of flash channels and a turbulence channel coupling each of the plurality of flash channels.

11. The method of claim 9, wherein the step of providing further comprises:

providing a variably adjustable obstruction between the filter screen and a portion of the die body.

12. The method of claim 11, where the step of providing a variably adjustable obstruction comprises:

providing a protrusion on the inner surface of the filter screen; and

providing a mating surface on a portion of the die body.

13. The method of claim 12, wherein the step of providing a protrusion comprises providing a frustoconical protrusion.

14. A method of optimizing flash drying of material, comprising the steps of:

providing a dynamically adjustable die assembly, said die assembly comprising a filter screen, a die body and a dynamically variable pressure adjuster between said die and said die body;

forcing material through the die body, the dynamically variable pressure adjuster and the filter screen at controllable flow rates; and

varying the controllable flow rates and the pressure adjuster,

whereby adjustment of the controllable flow rates and pressure adjuster provide optimizing control of the pressure and temperature applied to and generated in the material.

15. The method of claim 14, wherein the step of providing a dynamically adjustable die assembly further comprises the step of:

providing a portion of the filter screen and a portion of the die body with mating surfaces.

16. The method of claim 14, wherein the step of providing a dynamically adjustable die assembly further comprises the step of:

providing a portion of the filter screen and a portion of the die body with mating frustroconical surfaces.

17. The method of claim 14, further comprising the steps of:

providing the filter screen with a plurality of flash channels; and

providing a turbulence channel connecting the plurality of flash channels,

whereby, as material flows through the die body, the pressure adjuster, the turbulence channel and the flash channels, seriatim, a first flash drying of the material is produced in the turbulence channel and a second flash drying of the material is produced at the flash channels.

18. The method of claim 14, wherein the step of providing a dynamically adjustable die assembly further comprises the step of:

providing the die body and the adjustment sleeve with matching threaded portions.

20. An adjustable die assembly for use in removing liquid from a mixture, comprising:

a die body defining a first surface located along a first end of the die body;

a die positioned proximate to the first end of the die body, the die having an interior side that defines a second surface, wherein the first surface and the second surface define a passage for the flow of the mixture during operation of the die assembly;

an adjusting element in mechanical communication with the die and the die body, the adjusting element providing for the relative movement of the die relative to the die body so as to allow adjustment of the size of the passage during operation of the die assembly.

21. An adjustable die assembly as in claim 20, wherein the first and the second surfaces are frustoconical in shape.

22. An adjustable die assembly as in claim 21, wherein the die is removably attached to the adjusting element.

23. An adjustable die assembly as in claim 22, wherein the die body is removably attached to the adjusting element.

24. An adjustable die assembly as in claim 23, wherein the die defines a plurality of holes that are in fluid communication with a chamber configured for flashing the mixture during operation of the die assembly.